AMENDMENTS TO THE SPECIFICATION

IN THE ABSTRACT

A radar apparatus ~~is provided~~ in which an interpolated sweep between adjacent real sweeps is formed irrespective of an interval between the real sweeps, and image data corresponding to one cycle of sweeping can be certainly updated. A sweep azimuth generator (12) generates and outputs an azimuth of ~~an interpolated~~a sweep interpolated between a current ~~real sweep azimuth~~ and ~~the~~ previous real sweep azimuth based on the current ~~real sweep azimuth~~ and ~~the~~ previous real sweep azimuths, to a draw address generator (7). A sweep data generator (11) performs ~~a~~ linear interpolation ~~process~~ based on solitariness removed data of current real sweep data read from a sweep memory (4), and the previous solitariness removed real sweep data stored therein to generate and output interpolated sweep data ~~between these real sweeps~~ to an image memory (8). The image memory (8) stores the solitariness removed real sweep data or the interpolated sweep data based on the real ~~sweep azimuth~~ and ~~the~~ interpolated sweep azimuths from the draw address generator (7), and outputs them to a display (9) ~~in accordance with raster scanning~~.

IN THE SPECIFICATION:

Title

Please amend the title as follows: RADAR APPARATUS ~~OR LIKE~~

Page 1

Please amend page 1, beginning at line 4 as follows:

The present invention relates to a radar apparatus which forms and displays detection image data for all azimuths based on a detection signal received by an antenna~~, and devices similar thereto~~.

Page 5

Please amend page 5, beginning at line 17, as follows:

In FIG. 17, 17(a) is an image data configuration diagram in which only real sweep data is represented by numerical values, and ~~FIG.~~ 17(b) is an image configuration diagram in which intensity is changed based on the numerical values of ~~FIG.~~ 17(a). ~~FIG.~~ 17(c) is an image data configuration diagram in which each pixel data in the image memory 8 of the conventional example is represented by numerical values, and ~~FIG.~~ 17(d) is an image configuration diagram in which intensity is changed based on the numerical values of ~~FIG.~~ 17(c).

Page 6

Please amend page 6, beginning at line 8, as follows:

As another example, in FIG. 18, 18(a) is an image data configuration diagram when only real sweep data is represented by numerical values, and ~~FIG.~~ 18(b) is an image configuration diagram in which intensity is changed based on the numerical values of ~~FIG.~~ 18(a). ~~FIG.~~ 18(c) is an image data configuration diagram in which each pixel data in the image memory 8 of the conventional example is represented by numerical values, and ~~FIG.~~ 18(d) is an image configuration diagram in which intensity is changed based on the numerical values of ~~FIG.~~ 18(c). Note that, also in FIG. 18, a higher density of a pixel indicates a higher intensity of the pixel.

Page 7

Please amend page 7, beginning at line 8, as follows:

An object of the present invention is to provide a radar apparatus which can certainly update image data corresponding to one cycle of sweeping by forming an interpolated sweep between adjacent real sweeps irrespective of an interval between the real sweeps~~, and devices similar thereto~~.

Another object of the present invention is to provide a radar apparatus with excellent viewability in which noise is not emphasized and an image of an end of an object does not suddenly change~~, and devices similar thereto~~.

Disclosure of Invention

The present invention provides a radar apparatus ~~or like~~ for forming detection image data from real sweep data successively

Page 9

Please amend page 9 beginning at line 4 as follows:

The present invention also provides a radar apparatus ~~or like~~ for forming detection image

Page 19

Please amend page 19, beginning at line 2 as follows:

FIG. 8 is a data configuration diagram illustrating details of the solitariness removing process, and 8(a) is a data configuration diagram before the solitariness removing process, 8(b) is a data configuration diagram after the solitariness removing process, and 8(c) is a data configuration diagram illustrating a state of interpolated sweep data which is generated based on these pieces of data using a linear interpolation process described below and is stored in the image memory 8. Note that, in this figure, the threshold value is assumed to be "1".

In sweep data of ~~FIG.~~ 8(a), data $D\alpha 1$ of a real sweep θm and data $D\alpha 2$ of a real sweep θn are solitary data. Therefore, the data $D\alpha 1$ and $D\alpha 2$ are subjected to the solitariness removing process so that, as illustrated in ~~FIG.~~ 8(b), one of adjacent pieces of sweep data in the distance direction which is the smaller is replaced with data "0". Based on this data configuration, interpolated sweep data between adjacent pieces of real sweep data is generated using a linear interpolation process described below. Thereby, data actually stored in the image memory 8 has the configuration of ~~FIG.~~ 8(c).

Page 26

Please amend page 26, beginning at line 8, as follows:

In ~~FIGS.~~FIG. 12, 12(a) to (f) are configuration diagrams of detection images. Here, 12(a) is an image configuration diagram in which actual received data is represented by numerical values, and 12(b) is a configuration diagram of an image in which intensity is changed, depending on the numerical values of 12(a). 12(c) is an image configuration diagram in which image data when the process of the present invention is used is represented by numerical values, and 12(d) is a configuration diagram of an image in which intensity is changed, depending on the numerical values of 12(c). 12(e) is an image configuration diagram in which image data when the conventional process is used is represented by numerical values, and 12(f) is a configuration diagram of an image in which intensity is changed, depending on the numerical values of 12(e). Note that, in 12(b), 12(d), and 12(f), a higher density of a pixel indicates a higher intensity of the pixel.

Pages 26 – 27

Please amend pages 26 – 27, beginning at page 26, line 24, as follows:

In ~~FIGS.~~FIG. 13, 13(a) to (f) are also configuration diagrams of detection images. Here, 13(a) is an image configuration diagram in which actual received data is represented by numerical values, and 13(b) is a configuration diagram of an image in which intensity is changed, depending on the numerical values of 13(a). 13(c) is an image configuration diagram in which image data when the process of the present invention is used is represented by numerical values, and 13(d) is a configuration diagram of an image in which intensity is changed, depending on the numerical values of 13(c). 13(e) is an image configuration diagram in which image data when the conventional process is used is represented by numerical values, and 13(f) is a configuration diagram of an image in which intensity is changed, depending on the

numerical values of 13(e). Note that, in 13(b), 13(d), and 13(f), a higher density of a pixel indicates a higher intensity of the pixel of the pixel.

Page 28

Please amend page 28, beginning at line 5 as follows:

The present invention can be applied to a radar apparatus which forms and displays detection image data for all azimuths based on a detection signal received by an antenna~~, and devices similar thereto~~.